

Patent No.: US 6,674,894 B1  
Issue Date: January 6, 2004

**COPY**

PATENT  
Client Code: UNIUTAH.003NP  
Page 1

**ASSIGNMENT**

WHEREAS, We, Dennis L. Parker, a United States citizen, residing at 727 North 700 East, Centerville, Utah 84014, Andrew L. Alexander, a United States citizen, residing at 510 North Blackhawk Avenue, Madison, Wisconsin 53705, John A. Roberts, a United States citizen, residing at 1111 East 400 South, Salt Lake City, Utah 84102, and Brian E. Chapman, a United States citizen, residing at 3709 Perrysville, Pittsburgh, Pennsylvania 15214, have invented certain new and useful improvements in a METHOD AND APPARATUS FOR ENHANCING AN IMAGE USING DATA OPTIMIZATION AND SEGMENTATION for which a Letters Patent in the United States has been issued on January 6, 2004 as Patent No. 6,674,894 B1 (hereinafter "the Patent").

AND WHEREAS, University of Utah (hereinafter "ASSIGNEE"), a Utah Corporation, with its principal place of business at 615 Arapeen Drive, Suite 310, Salt Lake City, Utah 84108, desires to acquire the entire right, title, and interest in and to the invention disclosed in the Patent:

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to me in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said inventors, do hereby acknowledge that we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives, and assigns, the entire right, title, and interest throughout the world in, to, and under the said improvements, and the Patent and all Letters Patent that may be granted thereon, and all provisional applications relating thereto, and all divisions, continuations, reissues, reexaminations, renewals, and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which may be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, renewals, and reissues thereof; and we hereby authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements and all Letters Patents resulting from the Patent to ASSIGNEE, its successors, legal representatives, and assigns, in accordance with the terms of this Agreement.

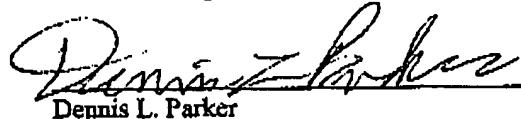
AND WE DO HEREBY sell, assign, transfer, and convey to ASSIGNEE, its successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including but not limited to, the right to sue for, collect, and retain damages for past infringements of the Patent before or after issuance.

AND WE HEREBY covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives, and assigns any facts known to us respecting the Patent immediately upon becoming aware of those facts, and testify in any legal proceeding involving the Patent, sign all lawful papers, execute all divisional, continuing, and reissue applications, make all rightful oaths, and will generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives, and assigns, to obtain and enforce the Patent in all countries.

Patent No.: US 6,674,894 B1  
Issue Date: January 6, 2004

**PATENT**  
Client Code: UNIUTAH.003NP  
Page: 2

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 21 day of March, 2006

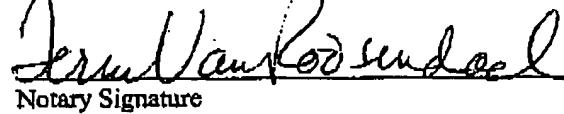
  
Dennis L. Parker

STATE OF Utah }  
COUNTY OF SLC } ss.

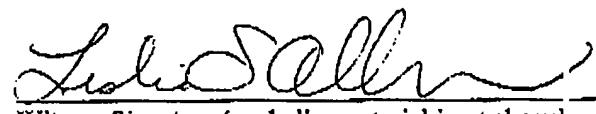
On March 21, 2006, before me, Teresa Van Hoosendaal, personally appeared Dennis L. Parker personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his authorized capacity(ies), and that, by his signature on the instrument, the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

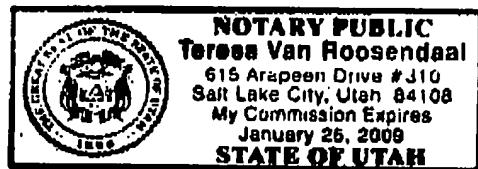
[SEAL]

  
Teresa Van Hoosendaal

Notary Signature

  
Linda Dally

Witness Signature (excluding notarial jurat above)



Patent No.: US 6,674,894 B1  
Issue Date: January 6, 2004

PATENT  
Client Code: UNIUTAH.003NP  
Page: 3

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 21 day of February, 2026.

Andrew Alexander  
Andrew L. Alexander

STATE OF WI }  
COUNTY OF DANE }

On 2-21-06, before me, Tob, Schell, personally appeared Andrew L. Alexander personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his authorized capacity(ies), and that, by his signature on the instrument, the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

[SEAL]

Toby Schellman  
Notary Signature

**Notary Signature**

Hanson Wiley  
Witness Signature (excluding notarial jurat above)

expires 6/21/09



Patent No.: US 6,674,894 B1  
Issue Date: January 6, 2004

PATENT  
Client Code: UNIUTAH.003NP  
Page 4

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 21 day of MARCH, 2006

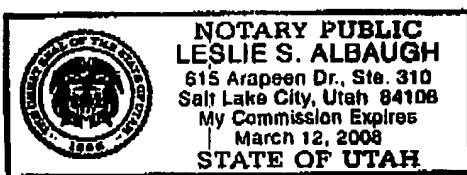
John A. Roberts

STATE OF UT }  
COUNTY OF Salt Lake } SS.

On March 21, 2016, before me, Leslie S. Albaugh personally appeared John A. Roberts personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his authorized capacity(ies), and that, by his signature on the instrument, the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

[SEAL]



Notary Signature

Witness Signature (excluding notarial jurat above)

## PATENT

Client Code: UNIUTAH.003NP

Page 5

Patent No.: US 6,674,894 B1  
Issue Date: January 6, 2004

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 23 day of Feb., 2006

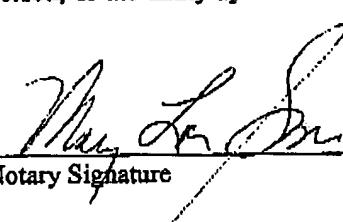
  
Brian E. Chapman

STATE OF PENNSYLVANIA }  
} ss.  
COUNTY OF ALLEGHENY }

On FEB 23 2006, before me, Mary Lou Sosso, personally appeared Brian E. Chapman personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his authorized capacity(ies), and that, by his signature on the instrument, the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

[SEAL]

  
Notary Signature

  
Witness Signature (excluding notarial jurat above)

COMMONWEALTH OF PENNSYLVANIA

Notarial Seal

Mary Lou Sosso, Notary Public  
City Of Pittsburgh, Allegheny County  
My Commission Expires Apr. 3, 2009

Member, Pennsylvania Association of Notaries

COPY

PATENT  
Client Code: UNIUTAH.003NP  
Page 1Patent No.: US 6,674,894 B1  
Issue Date: January 6, 2004

## ASSIGNMENT

WHEREAS, University of Utah, a Utah corporation having offices at 615 Arapeen Drive, Suite 310, Salt Lake City, UT 84108 (hereinafter "ASSIGNOR"), represents and warrants that it is the sole owner of the entire right, title, and interest to certain new and useful improvements for which ASSIGNOR has filed the following United States issued Letters Patent in the United States (hereinafter "the Patent"):

<u>Patent No.</u>	<u>Issue Date</u>	<u>Title</u>
6,674,894	January 6, 2004	METHOD AND APPARATUS FOR ENHANCING AN IMAGE USING DATA OPTIMIZATION AND SEGMENTATION

WHEREAS, University of Utah Research Foundation, a Utah corporation having offices at 615 Arapeen Drive, Suite 310, Salt Lake City, UT 84108 (hereinafter "ASSIGNEE") desires to purchase the entire right, title, and interest in and to the inventions disclosed in the Patent;

NOW, THEREFORE, in consideration of One Dollar (\$1.00) to ASSIGNOR, and other good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR hereby further acknowledges that it has sold, assigned, and transferred, and by these presents does hereby sell, assign, and transfer, unto ASSIGNEE, its successors, legal representatives, and assigns, the entire right, title, and interest throughout the world in, to, and under the said improvements, and the Patent and all Letters Patents that may be granted thereon, and all provisional applications relating thereto, and all divisions, continuations, reissues, reexaminations, renewals, and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent that may be filed for said improvements or for the Patent in any country or countries foreign to the United States, and all extensions, renewals and reissues thereof; and ASSIGNOR hereby authorizes and requests the Commissioner of Patents of the United States, and any Official of any country foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements and all Letters Patents resulting from the Patent to ASSIGNEE, its successors, legal representatives, and assigns, in accordance with the terms of this Agreement.

ASSIGNOR does hereby sell, assign, transfer, and convey to ASSIGNEE, its successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including but not limited to, the right to sue for, collect, and retain damages for past infringements of the Patent before or after issuance;

ASSIGNOR hereby covenants and agrees that it will communicate to ASSIGNEE, its successors, legal representatives, and assigns any facts known to ASSIGNOR respecting the Patent immediately upon becoming aware of those facts, and that it will testify in any legal proceeding involving the Patent, will sign all lawful papers, execute all divisional, continuing, and reissue applications, make all rightful oaths, and will generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives, and assigns to obtain and enforce the Patent in all countries.

## PATENT

Client Code: UNIUTAH.003NP

Page: 2

Patent No.: US 6,674,894 B1  
Issue Date: January 6, 2004

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 21<sup>st</sup> day of March, 2006

University of Utah

By: Rajiv Kulkarni

Name Printed: Rajiv K. Kulkarni

Title: Senior Technology Licensing Manager

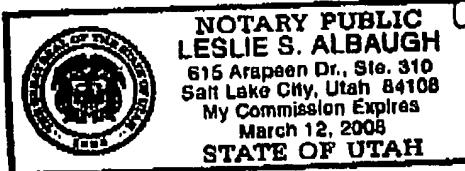
Date: March 21, 2006

STATE OF Utah }  
COUNTY OF Salt Lake } ss.

On March 21, 2006, before me, Leslie S Albaugh, personally appeared Rajiv K. Kulkarni, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that they executed the same in their authorized capacity(ies), and that, by their signature on the instrument, the entity upon behalf of which the person acted executed the instrument.

WITNESS my hand and official seal.

[SEAL]



Leslie S Albaugh  
Notary Signature

Jeanne Van Dusen  
Witness Signature (excluding notarial jurat above)

## MEMORANDUM

Date: 27 August 2003

To: Rajiv K. Kulkarni, Senior Technology Licensing Manager,  
Technology Transfer Office

From: Ray Gesteland, Vice President for Research, University of Utah  
President, University of Utah Research Foundation

**Subject: Delegation of Signatory Authority**

This Memorandum confirms the continuing authorization, granted you since 17 September 2001, to execute and sign documents on behalf of the University of Utah and the University of Utah Research Foundation for patent documents, confidential disclosure agreements and biological and materials transfer agreements.

R.F. Gesteland  
Raymond F. Gesteland, Ph.D.

Vice President for Research  
University of Utah

President  
University of Utah Research Foundation

University of Utah Research Foundation  
201 S PRESIDENTS CIRCLE RM 210  
SALT LAKE CITY, UTAH 84112-9011

(801) 581-7236  
FAX (801) 585-6212